Advances in Aircraft Landing Gear

R. Kyle Schmidt

SAE INTERNATIONAL

The aircraft landing gear system is relatively unique on board an aircraft—it is both structure and machine, supporting the aircraft on the ground, yet providing functions such as energy absorption during landing, retraction, steering, and braking.

Advances in Aircraft Landing Gear, edited by R. Kyle Schmidt, is a collection of eleven hand-picked technical papers that focus on the significant advancements that have occurred in this field concerning numeric modeling, electric actuation, and composite materials. Additionally, papers discussing self-powered landing gear and more electrical overall aircraft architectures have also been included.

The content of Advances in Aircraft Landing Gear is divided into two sections: Analysis and Design Methods; and Electric Actuation, Control, and Taxi, making it easier for the reader to find information quickly.

For those looking for additional knowledge on aircraft landing gears, the SAE A-5 committee (the Aerospace Landing Gear Systems Committee), serves as a useful forum for discussion on landing gear issues and development. A current listing of documents produced and maintained by this committee appears in the appendix of Advances in Aircraft Landing Gear.

R. Kyle Schmidt has twenty years of aircraft landing gear engineering experience garnered in Canada, France, and England. He has extensive exposure to the design, development, and in-service support of large civil aircraft landing gears, having been chief engineer for the A300/A310 family, A320 family, A330/A340 family, and A350 landing gears produced by Messier-Bugatti-Dowty.

With a degree in mechanical engineering from the University of Waterloo, Mr. Schmidt is a licensed professional engineer in the Province of Ontario. An accomplished inventor having been granted over twenty patents, Schmidt has also published a number of papers related to landing gear health monitoring and event detection.
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